

REMARKS

Claims 1-20 are pending in the application.

Claims 1-20 have been rejected.

Claims 1, 7, 13, 14 and 16 have been amended, as set forth herein.

I. **REJECTION UNDER 35 U.S.C. § 103**

Claims 1-10 and 12-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,546,058 B1 to *Gilhousen, et al*, hereinafter “Gil” in view of U.S. Patent No. 6,574,266 B1 to *Haartsen, et al*, hereinafter “Haartsen”. Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Gil in view of Haartsen, and further in view of U.S. Patent Publication No. 2003/0144003 to *Ranta, et al*, hereinafter “Ranta”. The rejection is respectfully traversed.

The Applicant respectfully disagrees and traverses the §103 rejections. The Applicant directs the Examiner’s attention to independent Claim 1, which recites the unique and novel limitations, some of which are emphasized below:

1. A method to be performed by a UE (user equipment), comprising:
detecting downlink signals of an active cell in which said UE is camping and its adjacent cells;
judging whether there exists a suitable cell whose link performance is a predefined value higher than that of said active cell for both the UE and another UE, according to the detecting result;
sending a detection report message to a network system to start a judging procedure of said network system if there exists said suitable cell, and said judging procedure deciding whether said UE and the another UE in P2P communication can handover into said suitable cell to continue communication in P2P mode. [Emphasis Added]

Amended Claim 1 comprises the element “*deciding whether said UE and another UE in P2P communication can handover into said suitable cell to continue communication in P2P mode.*” This element is fully supported by the specification, including paragraph [0029] and is respectfully submitted not to introduce any new matter. For the sake of clarity, paragraph [0029] is reproduced below:

[0029] The cell handover procedure by the UE and the UTRAN in conventional mode is described as above. In P2P communication mode, signaling signal takes place between the UE and the UTRAN, while traffic signals are flowing between two P2P communicating UEs. Accordingly, when one of the two P2P communicating UEs or two move to the border of a cell, if handover to another cell is needed, the handover operations will directly involve the two UEs. *Considering whether to handover the two*

UEs to another cell simultaneously and continue P2P communication, or maintain the P2P communication between the two UEs in current active cell, or handover the two UEs into conventional mode so that their communication won't be broken down, handover in P2P communication mode shows difference from the above handover in conventional communication mode. [Emphasis Added]

P2P communication mode allows traffic signals to flow *directly* between two communicating UEs. Unlike conventional communication where traffic flows through an intermediary base station or other device, P2P traffic is conducted directly between the UEs. Since both UEs communicate directly, it is generally preferable to have each of the UEs within a single cell. As paragraph [0029] discusses above, in order to maintain each of the UEs in a single cell, when the UEs move from one cell to another cell they switch cells together. This switching is not taught, suggested, or anticipated by the prior art of record. This method of switching at least two UEs which are communicating within a P2P communication mode is not taught, suggested, or anticipated by the prior art of record. Therefore, the Applicant respectfully submits that the element of “*deciding whether said UE and another UE in P2P communication can handover into said suitable cell to continue communication in P2P communication mode*” is not taught, suggested, or anticipated by the prior art of record.

Applicant also submits that the element of *P2P communication* is not taught, suggested, or anticipated by the prior art of record. In P2P communication mode, signaling signals flow between the UE and the network system, while traffic signals flow directly between two P2P communicating UEs. Without a mention of having differing paths for communication between the traffic signals and signaling signals through a P2P communication mode, as claimed, it is respectfully submitted that the prior art of record does not teach the claimed *P2P communication mode*.

The Office Action concedes that Gilhousen does not disclose P2P communication (Office Action, pg. 2, ll. 16-17) and attempts to cure this deficiency through Haartsen, citing the Abstract of Haartsen and Col. 12 ll. 28-49 of Haartsen. For ease of reference, the cited sections of Haartsen cited in the Office Action is set forth below:

A system and method for establishing ad hoc communication sessions between remote communication terminals is disclosed. A base station transmits a beacon signal including information about the identity and system clock of the base station. Remote terminals within range lock to the base station, synchronizing their system clocks with the base station's clock and setting their hop sequence and hop sequence phase based on information in the beacon signal. To establish an ad hoc communication session, a master terminal first establishes a link to the base station, which establishes a link to a

desired slave terminal. The base terminal exchanges information between remote terminals that enables the master terminal to establish a direct communication session with a slave terminal. [Abstract of Haartsen, Emphasis Added]

One of the advantages of having the terminals stay locked to the base station arises when, for example, the quality of the link 283 deteriorates to a point where excessive errors occur in the communication. *Either or both terminals 240, 250 can then easily and quickly send a message to the base station 210 requesting allocation of another channel or hop sequence. In addition, if one or both terminals move into an area or areas covered by a different base station 211 (see FIG. 7D), the terminals can request a "handover" of control from the base station 210 to the other base station 211. In that case, the base station 210 would send a message to the new base station(s), informing the new base station(s) that terminals 240, 250 having an ongoing ad hoc connection have roamed into the area or areas covered by the new base station(s).* The base station 210 or the new base station 211 would also send messages to the terminals 240, 250, directing them to listen to the broadcast channel(s) of the new base station(s). A new base station 211 takes over control when the terminals 240, 250 listen to the broadcast channel of the new base station instead of the broadcast channel 280 of the base station 210. As a result of such a handover, the channel 283 may be changed, e.g., to minimize interference, etc. [Col. 12 ll. 28-49 of Haartsen, Emphasis Added]

The sections of Haartsen cited in the Office Action do not establish that Haartsen uses P2P communications. Ad hoc communication is not the same as P2P communications. As previously discussed, in P2P communication mode, signaling takes place between the UE and the network system, while traffic signals are flowing between two P2P communicating UEs. The P2P framework disclosed is not anticipated, taught, or suggested by the prior art of record.

In addition, Claim 1 comprises the element of "*judging whether there exists a suitable cell whose link performance is a predefined value higher than that of said active cell for both the UE and another UE*". The judging of Claim 1 is initiated by "*sending a detection report message to a network system*." The Examiner has attempted to cite Gilhousen as teaching the element. However, as the Examiner has already acknowledge that Gilhousen does not teach P2P communication, Applicants respectfully submit that Gilhousen cannot teach, suggest, or anticipate the use of a judging procedure to determine the cell quality for P2P communications. The judging of a suitable cell for P2P communications requires, as noted by paragraph [0029] of the specification, the simultaneous handoff of at least two UE devices. This further may require the judging of whether there exists *a suitable cell whose link performance is a predefined value higher than that of the active cell for both the UE and another UE*. The judging of the link performance for both the UE and another UE is respectfully submitted not to be taught, suggested, or

anticipated by the prior art of record. Part of paragraph [0029] from the specification of the present application is reproduced below:

Considering whether to handover the two UEs to another cell simultaneously and continue P2P communication, or maintain the P2P communication between the two UEs in current active cell, or handover the two UEs into conventional mode so that their communication won't be broken down, handover in P2P communication mode shows difference from the above handover in conventional communication mode. [Paragraph [0029], Specification as filed].

Therefore, the judging of Claim 1, which determines if handover operations may be preformed for at least two UE devices at nearly or exactly the same time, is therefore not taught, suggested, or anticipated by Gilhousen.

Independent Claims 7, 14, and 16 also recite limitations analogous to the novel limitations emphasized above in traversing the rejection of Claim 1 and, therefore, also is patentable over the combination of cited references. Therefore, the Applicants respectfully submit that independent Claims 1, 7, 14, and 16 are patentable over the cited references.

With respect to the rejection of dependent Claims 2-6, 8-13, and 15, 17-20 over Haartsen and Gilhousen, for the same or similar reasons set forth above, and because the cited portions of Gilhousen fails to cure the noted deficiency in Haartsen, these claims are also patentable.

With respect to the rejection of dependent Claim 11 over Gilhousen, Haartsen and Ranta et al. (US 2003/0144003) for the same or similar reasons set forth above, and because the cited portion of Ranta et al. fails to cure the noted deficiency in the prior art, this claim is also patentable.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection of Claims 1-10 and 12-20.

II. CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.

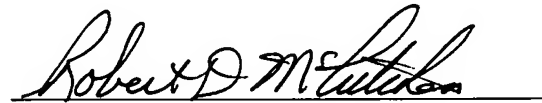
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *rmccutcheon@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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